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APPLICATION NO. 09/154,399	FILING DATE 11/02/98	FIRST NAMED INVENTOR SEDDON	ATTORNEY DOCKET NO. N 640-128
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PM51/0919

EXAMINER ISSING, G
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ART UNIT 3662	PAPER NUMBER 7
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DATE MAILED: 09/15/00  
09/20/00 C.C.

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

**CONFIDENTIAL****Office Action Summary**

Application No.

09/184,399

Applicant(s)

SEDDON ET AL.

Examiner

Gregory C. Issing

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 6 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 November 1998.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☒ Claim(s) 4 and 6 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☒ None of the CERTIFIED copies of the priority documents have been:
1. ☒ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

**Attachment(s)**

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

**CONFIDENTIAL**

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1. The drawings are objected to since the boxed representations of Figure 3 are required to be labelled with descriptive titles.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Cicchetti et al.

Cicchetti et al disclose a tube (Fig. 1) comprising non-linear element 12, gain control circuit 26 coupled to anode 24 and phase control circuit 28 coupled to the non-linear element for varying the velocity of the microwave signals and thus, the phase. Figure 7 shows an antenna array configuration.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and <sup>5</sup>~~3~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over Cicchetti et al teach the subject matter substantially as claimed but fails to teach the particular non-linear dispersive electrical circuit. Braeckelmann teaches a pulse generator in Figure 1 used in achieving a desired delay. Seddon teaches the conventionality of replacing conventional inductors of ~~M~~ a

*Cicchetti et al in view of Braeckelmann and Seddon.*

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pulse generator with inductors containing a magnetic core with a non-linear B-H curve, thereby achieving a variable inductance resulting in a variable and controllable delay. It would have been obvious to one having ordinary skill in the art to substitute the pulse generator of Braeckelmann using inductors having a magnetic core with a non-linear B-H curve as in Seddon to provide the variable and controllable delay elements in the pulse generator of the antenna array of Cicchetti et al to thereby provide a simple and cost-effective phases array radar.

4. Claims 4 and 6 are objected as being dependent on rejected base claims.
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Okamura discloses a variable delay device for use in radar utilizing the teaching of variable elasticity of material (ferromagnetic, ferroelectric or piezoelectric) to effect control of the delay. *Sh* Seddon (GB 2317752) discloses a non-linear dispersive transmission line. *9.18.00*
6. This is a communication from the Examiner assigned the application: Gregory C. Issing (703)306-4156.

*Gregory C. Issing*  
GREGORY C. ISSING  
PRIMARY EXAMINER

Issing/sr  
09-06-00